AMENDMENT

It is respectfully requested that the claims be amended without prejudice, as follows. This Listing of the Claims will replace all prior versions and all prior listings of the claims in the present application:

1. (Currently amended) An evaporation system in a processing plant processing a product and supplying process waste steam, the system comprising:

an evaporator for concentrating the product at a given dew point temperature, the evaporator having an exit for product vapor heated by process waste steam supplied by the processing plant;

a process stage operatively connected to the evaporator to be heated to a defined temperature by product vapors of the evaporator; and ~~wherein~~

a vapor compression stage ~~is~~ operatively connected to the product vapor exit of the evaporator and to the process stage, to lower ~~which compression stage lowers~~ the given dew point temperature of the evaporator below the defined temperature ~~value~~ required for heating the process stage and~~, by comparison of the product vapor, raises~~ to raise the temperature of the product vapor to the defined temperature ~~value required for heating the process stage~~ by compressing the product vapor,

wherein the process waste steam supplied by the processing plant is superheated process waste steam,

wherein the system further comprises saturated process steam generating means for generating saturated process waste steam from superheated process waste steam without condensation by adding water or condensate thereto,

wherein the saturated process steam generating means comprises a wet washer purifying the superheated process waste steam and converting the superheated process waste steam in a condensation-free manner into purified saturated process waste steam to be supplied to the evaporator, and

wherein the system forms a process waste steam route from a drier through the wet washer, a heating space of the evaporator and a waste steam outlet line of the evaporator to a waste steam chimney and wherein a delivery pump is arranged in the process waste steam route.

2-6. (Canceled)

7. (Currently amended) The evaporation system as claimed in claim 1, wherein the vapor compression stage is in the form of a mechanical vapor compression stage.

8. (Previously presented) The evaporation system as claimed in claim 1, wherein the processing stage includes at least one additional evaporator.

9-11. (Canceled)

12. (Currently amended) The evaporation system as claimed in claim ~~11~~ 1, wherein the delivery pump is a fan.

13. (Canceled)

14. (New) An evaporation system in a processing plant processing a product and supplying process waste steam, the system comprising:

an evaporator for concentrating the product at a given dew point temperature, the evaporator having an exit for product vapor heated by process waste steam supplied by the processing plant;

a process stage operatively connected to the evaporator to be heated to a defined temperature by product vapors of the evaporator; and

a vapor compression stage operatively connected to the product vapor exit of the evaporator and to the processs stage, to lower the given dew point temperature of the evaporator below the defined temperature required for heating the process stage and to raise the temperature of the product vapor to the defined temperature by compressing the product vapor,

wherein the process waste steam supplied by the processing plant is superheated process waste steam,

wherein the system further comprises saturated process steam generating means for generating saturated process waste steam from superheated process waste steam without condensation by adding water or condensate thereto,

wherein the saturated process steam generating means comprises a wet washer purifying the superheated process waste steam and converting the superheated process waste steam in a condensation-free manner into purified saturated process waste steam to be supplied to the evaporator, and

wherein the system includes at least one evaporator in fluid communication with the wet washer for feeding condensate of the at least one evaporator to the wet washer for the saturation and purification of the superheated process waste steam.

15. (New) The evaporation system as claimed in claim 14, wherein the vapor compression stage is in the form of a mechanical vapor compression stage.

16. (New) The evaporation system as claimed in claim 14, wherein the processing stage includes at least one additional evaporator.